

REFERENCES

- Davies, L. 1957. A new *Prosimulium* species from Britain, and a re-examination of *P. hirtipes* Fries from the Holarctic Region (Diptera: Simuliidae). Proc. R. Ent. Soc. Lond. (B) 26 Pts. 1-2: 1-10.
- Rothfels, K. 1956. Black flies: siblings, sex, and species grouping. J. Hered. 47 (3): 113-122.
- Sommerman, K. 1953. Identification of Alaskan black fly larvae (Diptera: Simuliidae). Proc. Ent. Soc. Wash. 55 (5): 258-273.
- . 1956. Do-it-yourself entomological equipment. Mosquito News 16 (4): 306-308.
- . 1958. Two new species of Alaskan *Prosimulium*, with notes on closely related species. (Diptera: Simuliidae). Proc. Ent. Soc. Wash. 60 (5): 193-202.
- . 1962. *Prosimulium doveri*, a new species from Alaska, with keys to related species (Diptera: Simuliidae). Proc. Ent. Soc. Wash. 63 (4): 225-235.
- , et al 1955. Biology of Alaskan black flies (Simuliidae: Diptera). Ecol. Monog. 25 (4): 345-385.
- Stone, A. 1952. The Simuliidae of Alaska (Diptera). Proc. Ent. Soc. Wash. 54 (2): 69-96.
- . 1964. Simuliidae and Thaumaleidae. Guide to the Insects of Connecticut Pt. VI, fasc. 9: 1-126. Conn. Geol. & Nat. Hist. Surv. Bull. 97.
- Syme, P. and D. Davies. 1958. Three new Ontario black flies of the genus *Prosimulium* (Diptera: Simuliidae) Part 1. Can. Ent. 90 (12): 697-719.

SOME TARSONEMIDAE FROM THE REPUBLIC OF THE CONGO

(ACARINA)

ROBERT L. SMILEY, *Entomology Research Division, A.R.S. U. S. Department of Agriculture, Washington, D. C.*

Very little is known about the tarsonemid mites of Africa, even though some are of economic importance. Being small and inconspicuous, few tarsonemids are collected, and so it is with some interest that mites belonging to this family were collected by E. W. Baker during a trip to the Congo in 1955. In the collection are undescribed species belonging to the genera *Tarsonemus* Canestrini and Fanzago, *Stencotarsonemus* Beer, and *Hemitarsonemus* Ewing. Known species of *Tarsonemus* and *Fungitarsonemus* were also found.

Tarsonemus cromroyi, new species

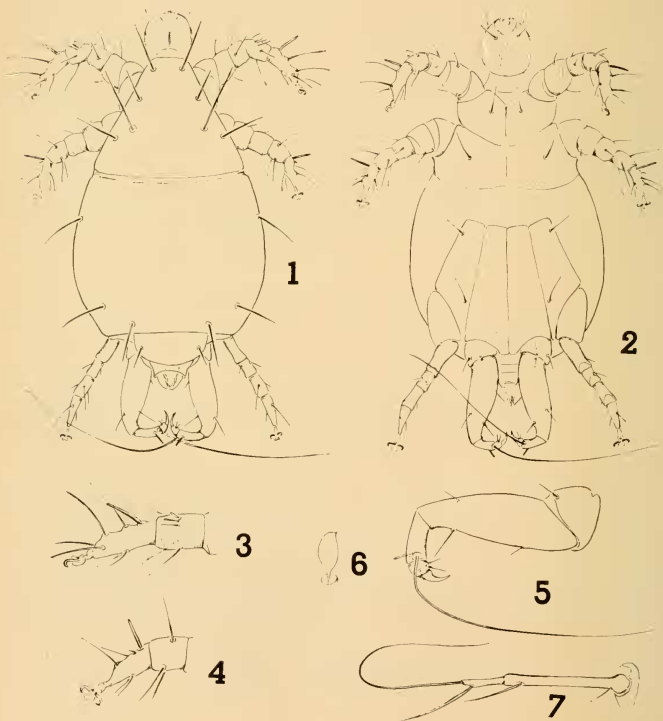
(Figs. 1-7)

This species is characterized by the presence of an extremely long rodlike solenidion on tarsus I and II of both sexes.

Male. Dorsal body setae short, strong, as figured; third pair of propodosomals longest, only slightly longer than second pair; second pair slightly longer than first

pair. First three pairs of hysterosomals of equal length, about as long as fourth pair of propodosomals; fourth pair short, about one third as long as others. Ventral apodemes as figured. Leg IV as figured; femur with very short anterior inner seta and longer distal setae; genu long, slender, with whiplike seta longer than leg; tibia-tarsus short, with short, slightly curved claw; tarsus I and II distinctive in having long rodlike solenidion. Body 135 μ long by 71 μ wide.

Female. Distinctive in having long rodlike solenidion on tarsus I and II, and in having the pseudostigmatic organ drawn to a point distally. Body 199 μ long by 96 μ wide.



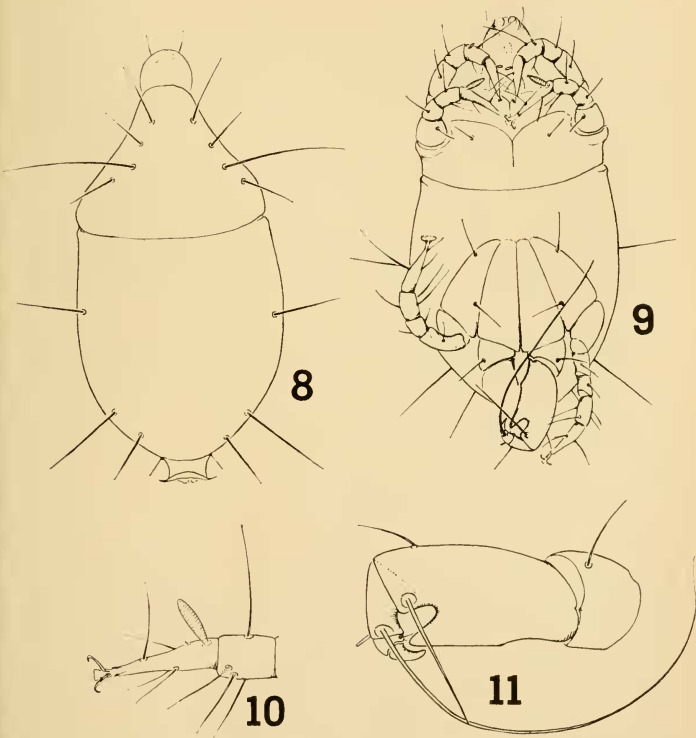
Tarsonemus cromroyi, new species. Fig. 1, dorsum, male; fig. 2, venter, male; fig. 3, tarsus and tibia I, male; fig. 4, tarsus and tibia II, male; fig. 5, leg IV, male; fig. 6, pseudostigmatic organ, female; fig. 7, leg IV, female.

The male holotype, U. S. National Museum No. 2953, and a female paratype were collected on *Hibiscus*, Mt. Hoyo, Congo, May 5, 1955 by E. W. Baker. The species is named for Dr. Harvey Leonard Cromroy, National Institutes of Health.

Tarsonemus setifer Ewing

Tarsonemus setifer Ewing, 1939. U. S. Dept. Agr. Tech. Bull. 653:1-63.

A single male specimen of this species was collected from *Spathodea campanulata* P. R., Lwiro, Congo, by E. W. Baker.



Stenotarsonemus mansoni, new species. Fig. 8, diagrammatic presentation of dorsal setal pattern, male; fig. 9, venter, male; fig. 10, tarsus and tibia II, male; fig. 11, leg IV, male.

Fungitarsonemus borinquensis Cromroy

Fungitarsonemus borinquensis Cromroy, 1958. Jour. Agr. Univ. Puerto Rico XLII (2): 39-144.

This species, originally described from Puerto Rico, was collected on "tree", Leopoldville; on *Berlinia* sp., Stanleyville, on *Datura* and peach, Mt. Hoyo; and on quinine leaf, Mulunga, all in the Congo, by E. W. Baker.

Steneotarsonemus mansonii, new species

(Figs. 8-11)

The male is separated from others in this genus in that the femur of leg IV is so constructed that when the distal segments are folded a pincer is formed; the solenidion of leg II is enormously enlarged. The female is not known.

Male. Body setation distinctive; all setae long, except for a pair of small posterior propodosomals. First pair of propodosomals longer than second and fourth, but about one-half as long as third; second and fourth equal in length and about two-thirds as long as the first. First and third pair of hysterosomals about as long as first pair of propodosomals; second pair longer than others but not as long as third pair of propodosomals; fourth pair of hysterosomals small, about one-third as long as third pair. Ventral setae and coxal apodemes as figured. Tarsus and tibia I each with a small lanceolate solenidion; tarsus II with a large solenidion long and strongly swollen. Leg IV characteristic in having the femur so constructed as to form a pincer with the distal segments when they are folded at genu; distal outer setae of femur short, inner distal seta straight, two to three times as long as outer; inner proximal seta lacking. Body 160 μ long by 77 μ wide.

A single male, the holotype, U. S. National Museum No. 2954, was collected on *Spathodea campanulata* P.R., Lwiro, Congo, May 17, 1955 by E. W. Baker.

This species is named for Mr. D. M. C. Manson, New Zealand Department of Agriculture.

Hemitarsonemus beeri, new species

(Figs. 12-18)

Although the legs of the male are similar to those of *Hemitarsonemus latus* (Banks), the long dorsal body setae separate these two species; also, all four pairs of propodosomal setae are present here, whereas in *latus* the second pair is lacking.

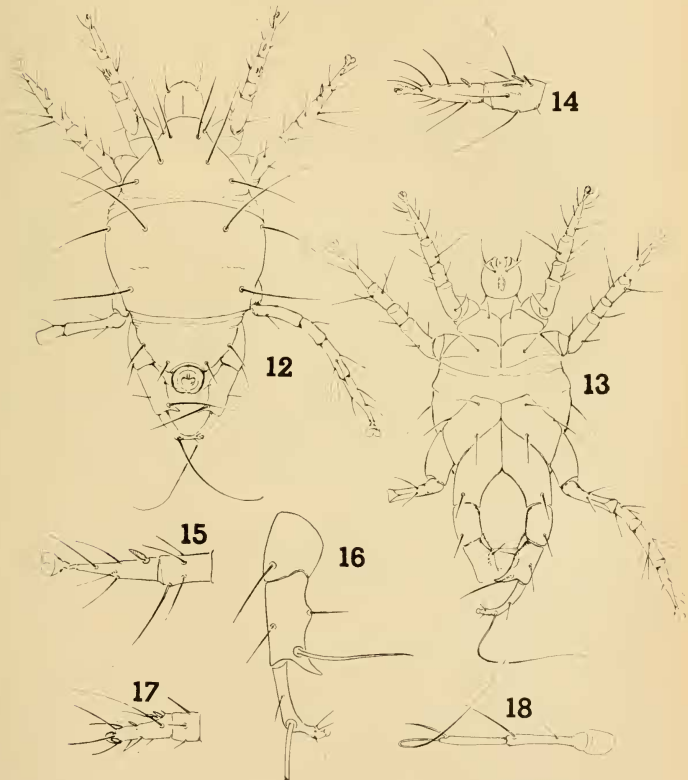
Male. Most dorsal body setae very long; the first pair of propodosomals short, about half as long as second pair; third pair the longest, slightly longer than the second and fourth which are about the same length. Hysterosomal setae long, the anterior inner pair the longest; the anterior outer pair not quite two-thirds as long as inner pair; third pair of hysterosomal setae about two-thirds as long as anterior inner pair; two posterior pairs equal in length. Venter as figured; the concave anterior apodemes of coxae III and IV characteristic; apodemes III and IV are joined anteriorly to the posterior median apodeme. Legs characteristic, as figured; leg IV similar to that of *Hemitarsonemus latus*, ending in a knob; femur with inner hook,

slightly buldging in region of inner seta. Body $167\ \mu$ long by $96\ \mu$ wide.

Female. Female, associated with the above male, similar to female of *Hemitarsonemus latus*. Body $200\ \mu$ long by $96\ \mu$ wide.

The holotype male, U. S. National Museum No. 2955, 14 paratype males, and 3 females were collected on *Ficus* sp., Lwiro, Congo, May 17, 1955 by E. W. Baker.

This species is named for Dr. Robert Beer, Department of Entomology, University of Kansas.



Hemitarsonemus beeri, new species. Fig. 12, dorsum male; fig. 13, venter, male; fig. 14, tarsus and tibia I, male; fig. 15, tarsus and tibia II, male; fig. 16, leg IV, male; fig. 17, tarsus and tibia I, female; fig. 18, leg IV, female.

REFERENCES CITED

- Baker, E. W., and G. W. Wharton. 1952. An introduction to acarology. 465 pp. The Macmillan Co., New York, N. Y.
- Beer, R. E. 1954. A Revision of the Tarsonemidae of the Western Hemisphere (Order Acarina). Univ. Kansas Sci. Bul. **36** (Pt. 2, No. 16): 1091-1387.
- Cromroy, H. L. 1958. A Preliminary survey of the plant mites of Puerto Rico. Jour. Agr. Univ. Puerto Rico. **42** (2): 39-144.

BOOK REVIEW

Index Literaturae Entomologicae. Serie II: Die Welt-Literatur uber die gesamte Entomologi von 1864 bis 1900. Band I: A-E By Dr. Walter Derksen and Dr. Ursula Scheiding. Deutsche Akademie der Landwirtschaftswissenschaften zu Berlin 1963 xii + 697 pp. Price: 55 DM.

The first volum in series II is a continuation of the work by Dr. Walther Horn and Dr. Sigmund Schenkling, which was a revised edition of Hagen's *Bibliotheca Entomologica*. As is obvious from the title, this series deals with world entomological literature from 1864 to 1900. It is expected that the entire series will be completed in 4 or 5 volumes and will contain approximately 90,000 titles which are classified under the author's name or pseudonym in alphabetical order. Following the "A" entries are all of the papers that were published with an author's initials only and then all of the anonymous contributions in chronological order.

The two-column format is an improvement over the Horn-Schenkling work. Each author's name is on a separate line and set in boldface type making it very easy to read. A most useful feature is a short biographical note on the author and references to all of his obituary notices. All entries are listed in the original language but where necessary (i. e. Slavic and Hungarian languages) a transliteration and translation is made of the author's name and title of the paper. These are enclosed in brackets.

It is stated in the introduction that seven years of work have gone into this Index. Drs. Derksen and Scheiding are to be commended for their thoroughness; I fail to find any serious omissions in this first volume. However, it is certainly unfortunate that the volume was printed on a grade of paper of newsprint quality and will not stand up to repeated usage.

This Index has been needed for many years and will be of great assistance to research workers. It will doubtless find a place beside the *Zoological Record* in all libraries and entomological institutions throughout the world.

JON L. HERRING